



King County

**Department of Development
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DRIVEWAY CONNECTIONS FOR RESIDENTIAL BUILDING SITES AND PROPERTY ACCESS

For alternate formats, call 206-296-6600.

Purpose: The purpose of this document is to provide information to builders and property owners on the requirements and obligation to provide an access connection to their property that conforms to adopted County standards for unincorporated King County.

Authority: King County Code (KCC) 14.28.020 exempts driveway connections from obtaining a right-of-way use permit. However, KCC 14.28.080 requires all driveway connections be constructed according to the King County Road Standards (KCRS).

Road Standards for Driveway Connections: Section 3.01 KCRS provides specifications and drawing references for all driveway connections that apply to all public and private roadways in unincorporated King County. Excerpts from 1993 KCRS¹ on driveway connection requirements are included on the following pages. The standards also include drawing details available at www.metrokc.gov.

If you are accessing onto a rural (open ditch) roadway, the driveway should conform to drawing 3-003 (KCRS) in size and dimension. If a culvert pipe is required, it should be sized as noted and have beveled end sections shown in drawing 2-001.

If you are located on an urban (curb and gutter) roadway, the driveway should conform to drawing 3-004 (KCRS) in size and dimension. If your property falls away from the roadway (is lower), drawing 3-005 provides an alternative design.

All driveway connections should be located on the property frontage so minimum sight distances along the road frontage are met (section 2.11 and 2.12) and setbacks from intersections, alleys and property boundaries as shown in drawing 3-006.

In addition to all the notes on the driveway drawings, the following also apply to all driveway connections.

- Second driveways are allowed on lots with greater than 75 feet of frontage but require approval from DDES prior to installation.
- Residential driveway connections may be up to 30 feet wide for accesses to 3 car garages.
- Driveway locations must allow for minimum sight distances (see 2.12 and 2.13 KCRS)
- Driveways which do not conform to the drawings and specifications in Section 3.01 KCRS will require variance approval per Section 1.08 KCRS prior to construction.

¹ Adoptive Ordinance 11187 9/20/1993

Excerpts from the 1993 KCRS on driveway connection requirements for building permits and property access

3.01 Driveways

- A. Dimensions, slope, and detail shall be as indicated in Drawings No. 2-001, 3-003, 3-004, 3-005 and 3-006, as further specified in the following subsections. See Section 2.13 for entering sight distance requirements.
- B. Conditions for Approval of New Driveways:
 - 1. Driveways directly giving access onto arterials may be denied if alternate access is available.
 - 2. All abandoned driveway areas on the same frontage shall be removed and the curbing and sidewalk, or shoulder and ditch section, shall be properly restored.
 - 3. Maintenance of driveway approaches shall be the responsibility of the owner whose property they serve.
 - 4. For a commercial establishment on a shoulder and ditch type road, where development of adjoining lands and highway traffic assume urban characteristics as determined by the Reviewing Agency, the frontage shall be finished with curb, gutter, and sidewalk, with pipe drainage, all in accordance with these Standards. Alternatively, the Reviewing Agency may require the entire frontage area to be graded and paved to the right-of-way line with asphalt or portland cement concrete. In such a case, surface drainage shall be intercepted and carried in a closed system as set forth in Chapter 7. Access shall be limited by means of a six-inch curbing. See Extruded Asphalt or Cement Concrete Curb detail, Drawing No. 3-002.
 - 5. For driveways crossing an open ditch section, culverts shall be adequately sized to carry anticipated stormwater flows and in no case be less than 12 inches in diameter. The property owner making the installation shall be responsible for determining proper pipe size. The Reviewing Agency may require the owner to verify the adequacy of pipe size.
- C. Location and Width of New Driveways. Refer to Drawing No. 3-006.
 - 1. A residential driveway shall typically serve only one parcel. A driveway serving more than one parcel shall be classed as a commercial driveway or a private street, except as provided in 3.a. and 3.b. below.
 - 2. On frontages 75 feet or less, no more than one driveway per lot shall be constructed; on frontages over 75 feet, two or more driveways per lot may be permitted, subject to approval by the Reviewing Agency.
 - 3. No portion of driveway width shall be allowed within 5 feet of side property lines in residential areas or 9 feet in commercial areas except as follows:
 - a. A joint use driveway tract may be used to serve two parcels:
 - (1) Minimum tract width in urban areas shall be 20 feet with an 18 foot paved surface, cross slope in one direction and curb or thickened edge on one side. Minimum tract length shall be 20 feet from right-of-way line. Radius returns on paved apron shall have 10-foot radii.
 - (2) Minimum tract width in rural areas shall be 20 feet; 30 feet if a ditch is required. Minimum tract length shall be 20 feet from right-of-way line. Radius returns on paved apron shall have 10-foot radii.
 - (3) Driving surface (rural areas) shall be 18 feet, paved or gravel, with a paved apron from the edge of pavement of intersecting street to right-of-way line.
 - (4) The Reviewing Agency may allow use of an easement if the only access to a serving roadway is through an adjacent parcel not owned by the applicant or for urban residential short plats to satisfy minimum lot width requirements.

- b. Driveways may utilize full width of narrow "pipe-stem" parcels or easements, if approved by Reviewing Agency.
- c. On cul-de-sac bulbs, as necessary, for proposed residential access.
- 4. Grade transitions, excluding the tie to the roadway, shall be constructed as smooth vertical curves. Ties to the roadway shall be constructed as shown in Drawings 3-003 and 3-004. The maximum change in driveway grade, within the right-of-way, shall be 8% within any 10 feet of distance on a crest and 12% within any 10 feet of distance in a sag-vertical curve. Driveway shall be graded to match into possible future widened road section without encroachment into graded shoulder or sidewalk. The design engineer for proposed developments shall consider the access driveway profile when designing the serving road to ensure that required grade transitions can be complied with considering building set back and lot terrain conditions.
- 5. Driveways in rolled curb sections may be constructed abutting and flush with sidewalk, or back of curb without gapping or lowering height of curb.
- D. Existing driveways may be reconstructed as they exist provided such reconstruction is compatible with the adjacent road.
- E. For commercial or industrial driveways with heavy traffic volumes or significant numbers of trucks, the Reviewing Agency may require construction of the access as a road intersection. This requirement will be based on traffic engineering analysis submitted by the applicant that considers, among other factors, intersection spacing, sight distance and traffic volumes.
- F. Notwithstanding any other provisions, driveways will not be allowed where they are prohibited by separate County Council action or where they are determined by the Engineer or Reviewing Agency to create a hazard or impede the operation of traffic on the roadway.

Excerpts from the 1993 KCRS on minimum stopping site distance that applies to all driveway connections

2.12 Stopping Sight Distance (SSD) applies to street classifications as shown in Sections 2.02, 2.03 and 2.04. See Tables 2.1 and 2.2 for specific SSD values based on required design speed. (*Note: Design speed is 10 mph over the posted speed*).

- A. Height-of-eye is 3.5' and height-of-object is 0.5'.
- B. Minimum SSD for any downgrade averaging three percent or steeper as provided in Section 2.05, Tables 2.1 and 2.2 shall be increased by the values shown below for any downgrade averaging three percent or steeper (Source: AASHTO Policy on Geometric Design, Table 111-2). Interpolate values for other design speeds and grades

SSD ADJUSTMENT VALUES (FT)			
<u>DESIGN SPEED (MPH)</u>	<u>DOWNGRADE 3 Percent</u>	<u>. 6 Percent.</u>	<u>9 Percent</u>
60	50	110	
50	30	70	
40	20	40	70
30	10	20	30

- C. Sag-vertical curves on sub-access and minor access streets with stopping sight distance less than that called for in Section 2.03 may be approved by the Reviewing Agency if no practical design exists and if acceptable road lighting is provided throughout the curve and is maintained by a franchised utility.

D. Intersecting Stopping Sight Distance.

1. Stopping sight distances for the design speeds of proposed commercial access streets, neighborhood collector streets and arterials must be met when intersecting arterials .
2. The minimum stopping sight distance on proposed intersection approaches for all other classifications of intersecting roadways shall be 125 feet.

Excerpts from the 1993 KCRS on minimum entering site distance that applies to driveway connections to an arterial or neighborhood collector road classifications

2.13 Entering Sight Distance (ESD) applies on driveways and on streets approaching intersections as set forth in Sections 2.02, 2.03, and 2.04. Entering sight distance criteria will not apply on local access streets or minor access streets (commercial). Specific ESD values for required design speeds are listed in Section 2.05, Tables 2.1 and 2.2.

- A. Entering vehicle-eye-height is 3.5 feet, measured from 10-foot back from edge of traveled way. Approaching vehicle height is 4.25 feet.
- B. Requirements in Section 2.05, Tables 2.1 and 2.2 apply to an intersection or driveway approach to a typical road under average conditions. In difficult topography the Engineer may authorize a reduction in the ESD based on factors mitigating the hazard. Such factors may include an anticipated posted or average running speed less than the design speed or the provision of acceleration lanes and/or a median space allowing an intermediate stop by an approaching vehicle making a left turn.
- C. Where a significant number of trucks will be using the approach road, the Engineer may increase the entering-sight distance requirements by up to 30 percent for single-unit trucks and 70 percent for semi-trailer combinations.

Table 2.1 (excerpt)							
Arterial Roads, Rural Residential And Commercial Access Streets Design Values							
Design Speed (mph)	30	35	40	45	50	55	60
Stopping Sight Distance (Ft.)	200	250	325	400	475	550	650
Entering Sight Distance (Ft.)	430	490	555	620	685	750	810

Check out the DDES Web site at www.metrokc.gov/ddes